REMARKS

This application has been reviewed in light of the Office Action mailed June 22, 2009. Reconsideration of this application in view of the below remarks is respectfully requested. Claims 1 and 3 are pending in the application with Claim 1 being in independent form.

By the present amendment, Claims 1 and 3 are amended. Specifically, Claim 1 has been amended to clarify the nature of step (i). Thus, it is clear that the timing characteristics are used to find the position of signal bursts in the incoming signal so that the zero crossing of step (ii) can be brought to coincide with that position.

Additionally, the unwanted signal elements of the present invention are generally bursts having a short duration in the incoming signal capable of producing the notch 200 in the signal envelope, as shown in Figure 2. Therefore, the term "signal element" has been amended to "signal burst" in Claims 1 and 3. No new subject matter is introduced into the disclosure by way of the present amendment.

I. Rejection of Claims 1 and 3 Under 35 U.S.C. § 103(a)

Claims 1 and 3 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Publication No. 2004/0022175 A1 (hereinafter, "Bolinth") and U.S. Publication No. 2005/0073947 (hereinafter, "Dey").

Regarding Claim 1, it is argued in the present Office Action that paragraph [0041] of Bolinth shows the establishing of timing characteristics of unwanted signal elements. However, these timing characteristics cannot be used to establish a position of a signal burst in an incoming signal because the characteristic is just constancy. There is no distinguishing feature that could be used to establish the position of a burst.

Bolinth, in paragraph [0041], sets out assumptions: that the time duration of the interference signals is substantially greater than the symbol duration T_s of the OFDM (Orthogonal Frequency Division Multiplexing) useful signal and that therefore the interference amplitude a_i can be assumed to be constant within the symbol duration. If the amplitude is assumed constant in the time period of interest, in this case a single symbol duration, then it is not possible to use that information to identify a position in the incoming signal, let alone to bring a zero crossing of a sinusoidal function to coincide with it, as in step (ii) of Claim 1.

Reference is made to paragraph [0065] in Bolinth, which shows the generation of a time domain window function. This window function in paragraph [0065] is generated with reference to the boundaries of the useful symbol duration, not the position of unwanted signal bursts which have been assumed constant. Specifically, paragraph [0065] discusses a window function that *"has a so-called Nyquist edge in the time domain that is distinguished by a point symmetry at the boundaries of the useful symbol duration T_s"*. This is discussed in terms of its impact on the interference signals. However, the window function is clearly defined in terms of the boundaries of the useful signal duration.

It is acknowledged by the examiner that Bolinth does not disclose a sinusoidal window function with zero crossings substantially coinciding with the position of each unwanted signal element, thus reference is made to Dey in that respect, and in particular to paragraphs [0015] and [0017] therein.

Dey is concerned with channel estimation in OFDM communications, a process which occurs prior to signal receipt, during a training sequence. The text bridging is described in paragraphs [0017] and [0018] as follows:

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"Additionally, the channel estimator may substantially zero filter coefficients associated with a channel impulse response that mostly contain noise.
The filter coefficients may be taps associated with the discrete-time channel impulse response...."

The use of the taps in this way is shown very clearly in Figure 3 and discussed in paragraph [0045], for example. It can be seen that the taps are being used to define a guard interval adjacent to the symbol duration of an incoming signal. Guard intervals are well-established in OFDM communications, being used to give immunity to propagation delays, echoes and reflections. Data is only interpreted outside the guard interval. There is no sinusoidal window function disclosed in Dey, with zero crossings at the position of unwanted signal bursts Rather, Day discloses a consecutive series of zeroed taps in a time domain block defining a guard interval.

Applicant submits that the arrangement shown in Dey could perhaps be applied to embody the arrangement described in Bolinth, to set boundaries of the useful symbol duration in an OFDM signal, but such a combination, nevertheless, would not arrive at an embodiment of Applicant's invention as recited in amended Claim 1.
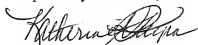
Therefore, for at least the reasons presented above, Claims 1 and 3 are believed to be allowable over the cited prior art references. Accordingly Applicant respectfully requests withdrawal of the rejection with respect to Claims 1 and 3 under 35 U.S.C. § 103(a) over Bolinth in view of Dey.

CONCLUSIONS

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1 and 3, are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Applicant's undersigned attorney at the number indicated below.

Respectfully submitted,

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